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SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: Gary Counts Examiner #: 78696 Date: 8/6/03
Art Unit: 1641 Phone Number 30[illegible]-1444 Serial Number: 09/932369
Mail Box and Bldg/Room Location: 7D16 Results Format Preferred (circle): PAPER DISK E-MAIL
7E12

If more than one search is submitted, please prioritize searches in order of need.

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: Mass Spectrometric analysis of biopolymers

Inventors (please provide full names): David Estell, Grant Gauthaw, Christian Peach, Sigrid Peach

Earliest Priority Filing Date: 8/25/00

***For Sequence Searches Only* Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.**

Please search attached Claim 1.

notes: * resolving is separating (i.e. HPLC or electrophoresis)

* Another term for biopolymer is biomolecule

* polypeptide can be antibody, protein, antigen

please have Alex or Beverly search

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Other (specify) _____

PTO-1590 (8-01)

L6 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2003 ACS on STN DUPLICATE 1
AN 1992:608129 CAPLUS
DN 117:208129
TI Applications of **isotope dilution-mass spectrometry** in **clinical chemistry, pharmacokinetics**, and toxicology
AU De Leenheer, Andre P.; Thienpont, Linda M.
CS Lab. Med. Biochem. Klin. Anal., Univ. Ghent, Ghent, B-9000, Belg.
SO Mass Spectrometry Reviews (1992), 11(4), 249-307
CODEN: MSRVD3; ISSN: 0277-7037
DT Journal; General Review
LA English

L11 ANSWER 21 OF 21 SCISEARCH COPYRIGHT 2003 THOMSON ISI on STN

TI **MASS-SPECTROMETRIC** QUANTIFICATION OF ENDOGENOUS BETA-ENDORPHIN

AB Fast atom bombardment (FAB) **mass spectrometry** and multiple reaction monitoring (MRM) in the B/E linked-field scan mode were used to quantify endogenous beta-endorphin (BE) in individual human pituitary extracts. The experimental protocol includes the addition of a stable **isotope**-labeled internal standard ((H-2(4)-Ile22)BE1-31, human) to the tissue homogenate before extraction, purification of the native BE by a combination of Sep-Pak chromatography and gradient high-performance liquid chromatography (**HPLC**), trypsin digestion to cleave BE into smaller peptides, and separation of the tryptic fragment BE20-24 (NAIIK) by isocratic reversed-phase **HPLC**. **Mass spectrometric** quantification is based upon recording either (a) the [M + H]+ ions of NAIIK and its deuterated **analog** ((H-2(4))NAIIK), or (b) the transitions {[NAIIK + H]+ --> [NAI]+} and {[(H-2(4))NAIIK + H]+ --> [(H-2(4))NAI]+} using the B/E linked-field scan. Linear calibration curves were obtained using these two **mass spectrometric** techniques from standard solutions containing 1.25-20-mu-g of BE; each standard solution also contained 10-mu-g of (H-2(4))BE. The amounts (x-BAR +/- s.d.) of endogenous BE in five separate human pituitaries were found to be 156 +/- 84 ([M + H]+ method) and 169 +/- 99 pmol mg-1 protein (MRM method).

SO BIOLOGICAL MASS SPECTROMETRY, (1991) Vol. 20, No. 3, pp. 130-138.

AU DASS C (Reprint); KUSMIERZ J J; DESIDERIO D M